



The Assal Rift Geothermal Project – Djibouti, East Africa

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Working Dinner with Al Gore and President of Iceland, Bessastadir, April 8th
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Country Status

- Strategic location and free trade zone in the Horn of Africa - regional port
- Population ~700,000
- Developing country of diverse cultures
- 50% unemployment
- Desert land 22,000 km² - most food imported
- Dependent on foreign assistance
- GDP per capita: 1,000 USD
- Access to water and electricity limits growth



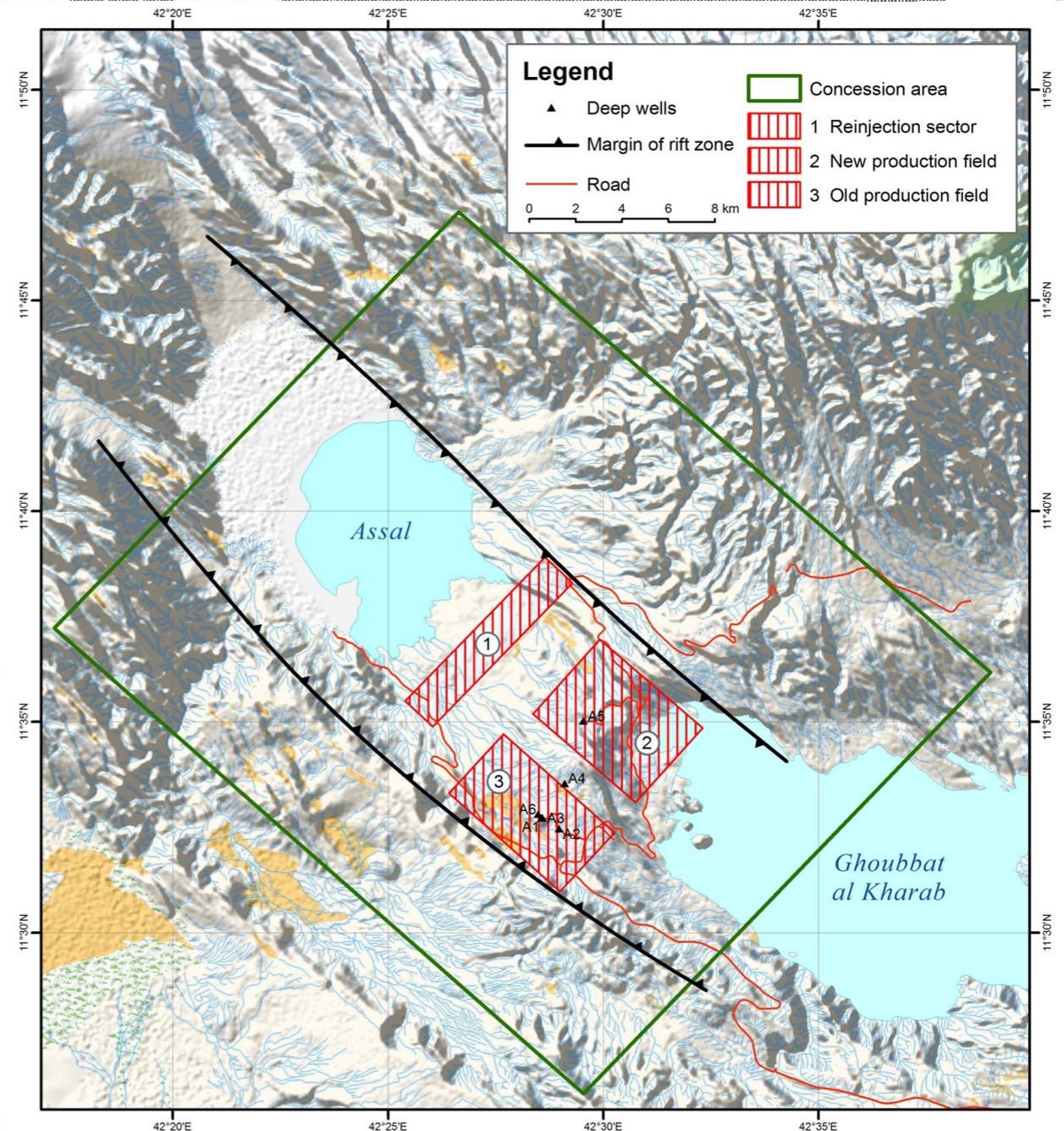
The Geothermal Resource

- Volcanic rift zone with untapped geothermal resources
- 6 wells, drilled by UNDP in 1980's, confirmed hot and saline resource
- 1991-1994 civil war stalled project
- Development contract signed between Government of Djibouti and Reykjavík Energy in 2007
- REI granted exploration license in the Assal Rift: 50 - 100 - 150 MW
- Oil-run electricity market 80-90 MW
- Current REI project to locate less hostile fluids for power production



Current Exploration in the Assal Rift

- Pre-feasibility study completed by REI in March 2008
- Multi-national surface exploration project in the 750 km² concession
- A feasibility study to follow. Drilling of 3-4 wells (15 - 20 M USD).
- REI delegation currently in Djibouti to finalize contracting issues
- Tendering documents for exploration drilling ready
- REI to provide finance and technology
- Government of Djibouti to ensure land rights and connection to national grid



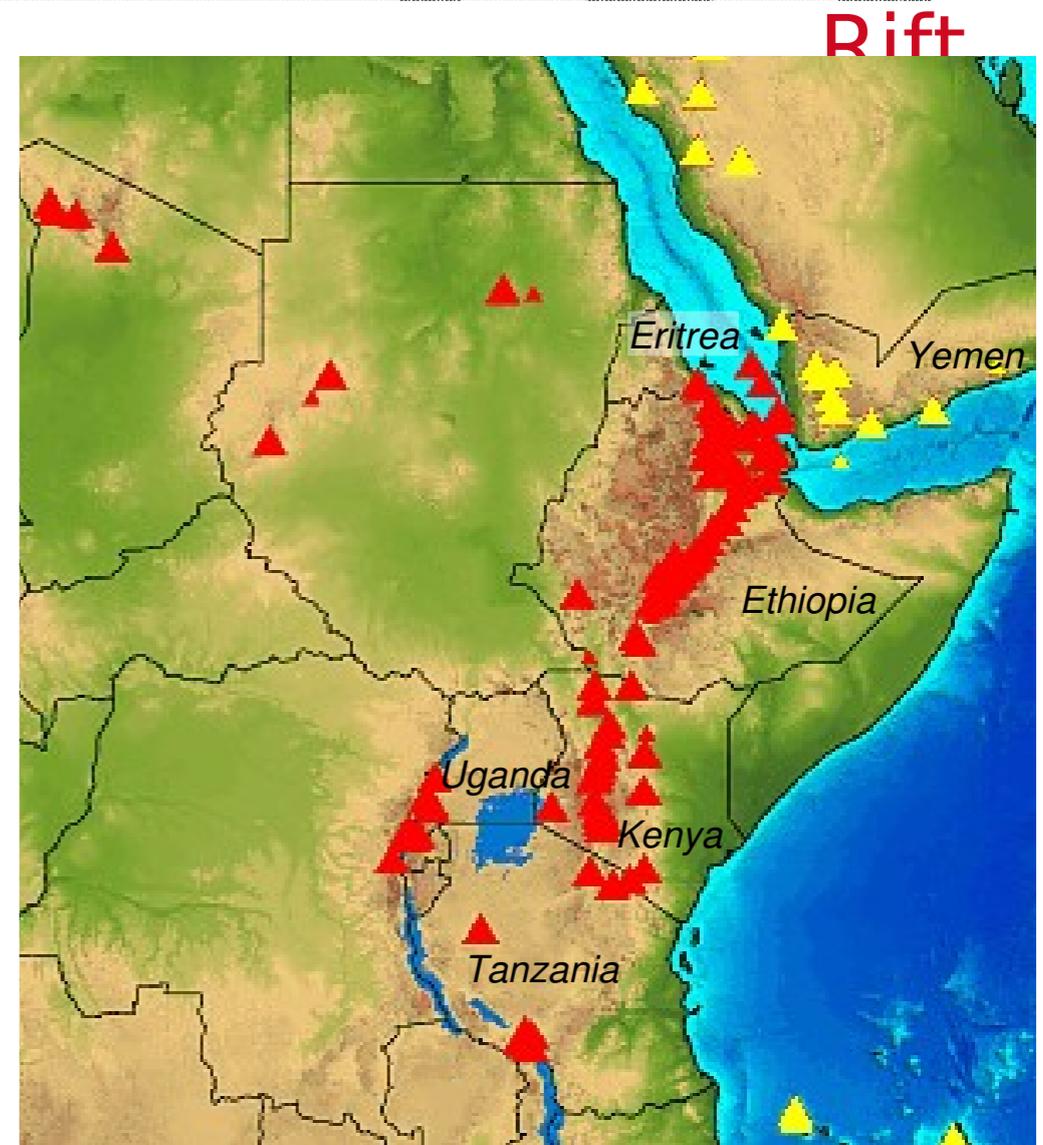
Development Tasks

- Build >50 MW geothermal power plant
- Potential investors and lenders identified
- Project life minimum 20 years
- Development cost <3,5 MUSD per MW_e
- Transparency
- Project has potential to supply Djibouti with clean and sustainable energy
- Innovative technologies may allow for cogeneration of tap-water
- Djibouti water use 20 million ton/year. Power plant steam condensate 3-10 m tons/year.



Opportunities in the East Africa

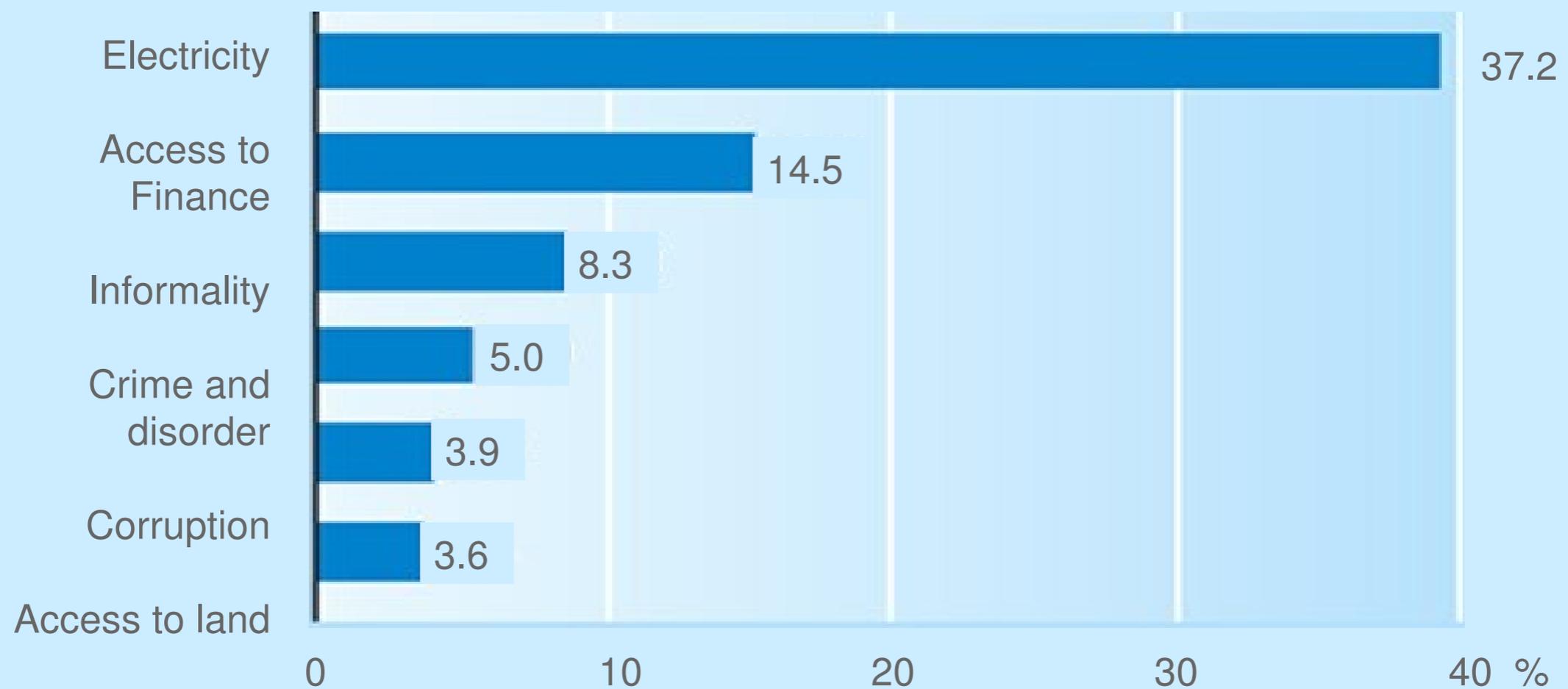
- The 7000 km Africa Rift Valley hosts many volcanoes and geothermal systems
- Eritrea, Djibouti, Ethiopia, Kenya, Uganda, Tanzania and Yemen
- Possible generating potential ~14,000 MW
- Current generation ~200 MW
- African Rift Valley Geothermal Development Facility (ARGeo) to stimulate development
- Risk Mitigation Fund by World Bank
- Skilled local groups of technicians and scientists but with limited opportunities
- Foreign geothermal investment welcomed



▲ Volcanoes with known or inferred Holocene eruptions
Source: <http://www.volcano.si.edu/gvp/>

Top Obstacles to Enterprises in

Firms ranking each factor as main obstacle to growth and performance in 2006



Source: World Bank Enterprise Surveys (<http://www.enterprisesurveys.org/>)